Order Code RS21673
Updated February 17, 2004

Selected Environmental Provisions in the Energy Bill (H.R. 6/S. 2095)

Brent Yacobucci, Coordinator
Analyst in Energy Policy
Resources, Science, and Industry Division

Summary

On November 18, 2003, the House passed the conference report accompanying the omnibus energy bill, H.R. 6 (H.Rept. 108-375). However, the Senate subsequently failed to invoke cloture and limit debate on the bill. On February 12, 2004, Senate leaders introduced a scaled-down energy policy bill, S. 2095, intended to offset the overall cost and some of the controversies of H.R. 6. Both H.R. 6 and the modified Senate bill contain various provisions that could affect environmental quality, either directly or indirectly. S. 2095 omits one of the most controversial of these provisions in H.R. 6 (providing a safe harbor for MTBE and renewable fuels) and modifies some of that bill's incentives. This report provides a short discussion of selected environmental provisions involving limits on the use of MTBE; a renewable fuel mandate for gasoline; stricter regulation of underground storage tanks; Clean Water Act requirements for oil and gas exploration; incentives and R&D funding for alternative fuels and vehicles; energy efficiency and conservation incentives; hydroelectric relicensing; ozone compliance deadlines; use of mining wastes; and hydraulic fracturing. This report will be updated as warranted.

MTBE and Ethanol: Fuels. Title XV of the bill contains several provisions addressing the gasoline additive methyl tertiary butyl ether (MTBE). Some of the H.R. 6 provisions in this title (notably the "safe harbor" for producers of MTBE and renewable fuels from product liability lawsuits that have been used to force petroleum and chemical companies to pay for cleanup of ground and surface water contaminated by releases of fuels containing MTBE) were among the most controversial elements in the bill. The safe harbor provision has been dropped from S. 2095, but other less controversial MTBE provisions remain in the bill.

Under the Clean Air Act Amendments of 1990, reformulated gasoline (RFG) sold in many areas of the country with poor air quality must contain an oxygenate (MTBE, ethanol, or other substances containing oxygen) to improve combustion and reduce emissions of ozone-forming compounds and carbon monoxide. A little more than 30% of the gasoline sold in the United States is RFG, and a majority of RFG has contained

MTBE. MTBE has been implicated in numerous incidents of groundwater contamination, however, and 17 states have taken steps to ban or regulate its use. The most significant of these bans (in California and New York) took effect at the end of 2003.

Like the conference report on H.R. 6, the new Senate energy bill would ban the use of MTBE as a fuel additive, except in states that specifically authorize its use, after December 31, 2014, unless the President determines not to ban it. The Clean Air Act requirement to use MTBE or other oxygenates in RFG would be repealed 270 days after enactment. In place of this requirement, the bill would provide a major new stimulus to the use of ethanol: Under a renewable fuels standard (RFS), annual production of gasoline would be required to contain at least 5 billion gallons of ethanol or other renewable fuel (more than double the current production of ethanol) by 2012. To prevent backsliding on air quality, the bill requires that reductions in emissions of toxic substances achieved by RFG be maintained; and it authorizes $2 billion in grants to assist merchant MTBE production facilities in converting to the production of other fuel additives. The bill also authorizes funds for MTBE cleanup (discussed immediately below). [This section prepared by James McCarthy, Specialist in Environmental Policy.]

MTBE and Underground Storage Tanks: Water Quality. The underground storage tank provisions in the new Senate energy bill, S. 2095, are identical to those in the conference report for H.R. 6. The conference report (Title XV, Subtitle B) makes extensive amendments to the Solid Waste Disposal Act (SWDA) to strengthen leak prevention provisions of the federal underground storage tank regulatory program, and to broaden the allowable uses of the Leaking Underground Storage Tank (LUST) Trust Fund. The conference report essentially incorporates the language of H.R. 3335, the Underground Storage Tank Compliance Act of 2003. The provisions add new tank inspection and operator training requirements; prohibit fuel delivery to ineligible tanks; expand underground storage tank (UST) requirements for federal facilities; and require EPA, with Indian tribes, to develop and implement a strategy to address releases on tribal lands. The provisions also authorize states to use funds from the LUST Trust Fund to help UST owners or operators pay the costs of remediating tank leaks in cases where the cost of cleanup would significantly impair the ability of the owner or operator to continue in business. EPA and states also may use LUST funds to conduct inspections and enforce federal and state UST release prevention and detection requirements.

Section 1531 authorizes LUST Trust Fund appropriations of $200 million annually for FY2004 through FY2008 for remediating tank leaks generally, and the same amount for responding to leaks containing MTBE or other oxygenated fuel additives (e.g., ethanol). [This section prepared by Mary Tiemann, Specialist in Environmental Policy.]

Oil and Gas Exploration: Clean Water. Section 328 of H.R. 6 would give a permanent exemption from Clean Water Act (CWA) stormwater runoff rules for the construction of exploration and production facilities by oil and gas companies and the roads that service those sites. S. 2095 includes an identical provision. Currently under the CWA, the operation of facilities involved in oil and gas exploration, production, processing, transmission, or treatment generally is exempt from stormwater runoff regulations, but the construction of these facilities is not. The amendment would modify the act to specifically include construction activities in the types of oil and gas facilities that are covered by the law's statutory exemption from stormwater rules.

The issue arises from stormwater permitting rules for small construction sites and municipal separate storm sewer systems that were issued by EPA in 1999 and became effective March 10, 2003. Those rules, known as Phase II of the Clean Water Act stormwater program, require most small construction sites disturbing one to five acres and municipal separate storm sewer systems serving populations of up to 100,000 people to have a CWA discharge permit. The permits require pollution-prevention plans describing practices for curbing sediment and other pollutants from being washed by stormwater runoff into local water bodies. Phase I of the stormwater program required construction sites larger than five acres (including oil and gas facilities) and larger municipal separate storm sewer systems to obtain discharge permits beginning in 1991.

As the March 2003 compliance deadline approached, EPA proposed a two-year extension of the Phase II rules for small oil and gas construction sites to allow the agency to assess the economic impact of the rule on that industry. EPA had initially assumed that most oil and gas facilities would be smaller than one acre in size and thus excluded from the Phase II rules, but recent Department of Energy data indicate that several thousand new sites per year would be of sizes subject to the rule.

The provision in the conference report is similar to one in the House-passed H.R. 6: It makes EPA's two-year delay permanent and makes it applicable to construction activities at all oil and gas development and production sites, regardless of size, including those covered by Phase I rules. Industry argues that the EPA stormwater rule creates costly permitting requirements, even though the short construction period for drilling sites carries little potential for stormwater runoff pollution. Supporters said the amendment was intended to clarify existing CWA language. Opponents argued that the provision did not belong in the energy legislation, and that there was no evidence that construction at oil and gas sites causes less pollution than other construction activities. [This section prepared by Claudia Copeland, Specialist in Resources and Environmental Policy.]

Alternative Fuels and Vehicles: R&D and Incentives. S. 2095 and the conference report contain identical provisions on hydrogen and fuel cell research and development, as one strategy to promote expansion of alternative fuels and advanced technology vehicles and reduce dependence on foreign oil. Title VIII would authorize $2.1 billion for hydrogen fuel and fuel cells R&D over the course of FY2004-FY2008. This is roughly equal to the amount announced by the President in the 2003 State of the Union address. A Senate-endorsed goal of 100,000 fuel cell vehicles commercially available by 2010 and 2.5 million vehicles by 2020 was not included in the final H.R. 6.

Tax incentives for alternative fuels and vehicles differ between S. 2095 and the H.R. 6 conference report. The provisions in S. 2095 are identical to those in the Senate-approved version of H.R. 6. Section 1318 of the conference report would provide extensive tax credits for the purchase of certain alternative fuel and advanced technology vehicles. Covered vehicles include fuel cell vehicles, electric vehicles, hybrid-electric vehicles, alternative fuel vehicles, and lean-burn vehicles. Credits vary depending on the technology employed, the performance of the vehicle, and the size of the vehicle. Under S. 2095 (sec. 1311), the credit amounts would differ, as would the method for computing those credits. Further, lean-burn vehicles would not qualify for the credits. Section 1319 of H.R. 6 would extend the existing tax deduction for the installation of alternative fuel infrastructure, while section 1313 of S. 2095 would replace the existing deduction with a tax credit. [This section prepared by Brent Yacobucci, Analyst in Energy Policy.]

Energy Efficiency and Conservation. S. 2095 and the H.R. 6 conference report contain similar provisions to promote energy efficiency and conservation. However, S. 2095 omits provisions from H.R. 6 on energy savings performance contracts. These contracts are intended to improve the energy efficiency of federal government buildings. Although the contracts result in zero net cost (because they are required to pay back any up-front costs through energy and water savings), they were removed from the bill to eliminate the estimated $3 billion up-front cost, according to the Senate Energy Committee.

Title XIII of the conference report and S. 2095 include a number of tax incentives to promote conservation and efficiency. The conference report on H.R. 6 would expand incentives for geothermal facilities. However, S. 2095 would delay those incentives until FY2005. Both versions provide additional support for weatherization programs and would establish a voluntary programs to promote efficient appliances. However, critics of the bill argue that incentives are heavily weighted toward energy production. [This section prepared by Brent Yacobucci, Analyst in Energy Policy.]

Hydroelectric Power: Relicensing. The modified Senate bill makes no change to Section 231 of H.R. 6, which would allow applicants for hydroelectric licenses increased flexibility in compliance with conditions imposed by federal agencies. Currently, the Federal Power Act gives certain federal agencies the authority to attach conditions to Federal Energy Regulatory Commission (FERC) licenses. For example, federal agencies may require applicants to build passageways through which fish can travel around the dam, schedule periodic water releases for recreation, release minimum flows of water for fish migration, control water release rates to reduce erosion, or limit reservoir fluctuations to protect the reservoir's shoreline habitat. Once an agency issues such conditions, FERC must include them in its license. While these conditions often generate environmental or recreational benefits, they may also require construction expenditures and may increase generation costs by reducing operational flexibility.

The provision in H.R. 6 and S. 2095 would allow stakeholders to propose alternative license conditions, and would require federal agencies to consider alternatives proposed by license applicants. It would also require an agency to accept an applicant's proposed alternative if it found that the alternative (1) provides for the adequate protection and utilization of the federal reservation, or will be no less protective of the fish resource than the fishway initially prescribed, and (2) costs less to implement, and/or will result in improved operation of the project for electricity production. [This section prepared by Kyna Powers, Analyst in Environmental Policy.]

Air Quality: Ozone Nonattainment Area Deadlines. Section 1443 of S. 2095 would extend Clean Air Act deadlines for areas that have not attained the ozone air quality standard if upwind areas "significantly contribute" to their nonattainment. This section was identical in H.R. 6. Under the 1990 Clean Air Act Amendments, ozone nonattainment areas were classified in one of five categories: marginal, moderate, serious, severe, or extreme. Areas with higher concentrations of the pollutant were given more time to reach attainment. In return for the additional time, they were required to implement more stringent controls on emissions. Failure to reach attainment by the specified deadline was to result in reclassification of an area to the next highest category and the imposition of more stringent controls.

For a variety of reasons, EPA has generally not reclassified areas when they failed to reach attainment by the statutory deadlines. As of June 2003, the agency's website listed 20 marginal areas, 7 moderate areas, and 12 serious areas, most of which should have been categorized as severe under the statutory requirements. In several cases, the agency granted additional time to reach attainment on the grounds that a significant cause of the area's continued nonattainment was pollution generated outside the area and transported into it by prevailing winds. EPA has been sued over its failure to bump up five of these areas; of the first three cases decided (Washington, D.C.; St. Louis; and Beaumont-Port Arthur, Texas), the agency lost all three. As a result, EPA has taken steps to reclassify the three areas.

Section 1443 would roll back these reclassifications and would extend attainment deadlines in areas affected by upwind pollution to the date on which the last reductions in pollution necessary for attainment in the downwind area are required to be achieved in the upwind area. The specific date is open for interpretation. Under EPA's overturned policy, areas were given extensions no longer than the attainment or compliance deadline in the upwind area (generally 2004, 2005, or 2007). The language of Section 1443 appears to give EPA flexibility to extend the deadlines beyond those dates, however; it also would apply to the agency's new eight-hour ozone standard scheduled to be implemented next year, making many additional areas eligible for extensions. [This section prepared by James McCarthy, Specialist in Environmental Policy.]

Use of Tar Creek Mine Tailings. The Tar Creek Superfund site in northeastern Oklahoma is a former lead and zinc mining area of approximately 40 square miles. Section 1445 of S. 2095 makes no changes to the same-numbered provision of H.R. 6; it directs the EPA Administrator to establish criteria for the safe and environmentally protective use of mine tailings from the site (known as "chat") in highway construction projects. The mine tailings are deposited in hundreds of piles and ponds in the area, and contain lead and other heavy metals. The criteria that the agency is instructed to issue are to include an evaluation of whether to establish numerical standards for the concentration of lead and other hazardous substances in materials used for highway construction. [This section prepared by Mark Reisch, Analyst in Environmental Policy.]

Hydraulic Fracturing: Drinking Water Regulation. Section 327 of the conference report amends the Safe Drinking Water Act (SDWA), Section 1421(d), to specify that the definition of "underground injection" excludes the injection of fluids or propping agents used in hydraulic fracturing operations for oil and gas production. The modified Senate energy bill, S. 2095, makes no changes to this provision.

The SDWA directed EPA to promulgate regulations for state underground injection control (UIC) programs that included minimum requirements for programs to prevent underground injection that endangers sources of drinking water. The provisions specified that UIC program regulations may not prescribe requirements that interfere with or impede "any underground injection for the secondary or tertiary recovery of oil or natural gas, unless such requirements are essential to assure that underground sources of drinking water will not be endangered by such injection" (SDWA §1421(b)(2)).

The bill prevents EPA from regulating the underground injection of fluids for hydraulic fracturing purposes, thus removing EPA's existing discretion to do so under SDWA. It incorporates language from the House bill specifically exempting hydraulic

fracturing from the definition of underground injection. The Senate bill directed EPA to study the effects of hydraulic fracturing of hydrocarbon-bearing formations on underground drinking water sources, and to determine whether regulation was necessary.

EPA reports that before 1997 it had not considered regulating hydraulic fracturing because it did not view this well production process as an activity subject to regulation under SDWA's UIC program. The Legal Environmental Assistance Foundation (LEAF) challenged EPA's interpretation, and argued that Alabama should regulate hydraulic fracturing for coalbed methane development as underground injection. LEAF petitioned EPA to withdraw Alabama's UIC program, and sued EPA when the petition was rejected. In 1997, the 11th Circuit Court of Appeals ruled that the injection of fluids for the purpose of hydraulic fracturing constitutes underground injection, that all underground injection must be regulated, and that hydraulic fracturing of coalbed methane wells in Alabama should be regulated under the state's UIC program (LEAF v. EPA, 118 F. 3d 1467).

Following the court's decision, EPA decided it needed more information before making further decisions regarding the regulation of hydraulic fracturing, and undertook a study to evaluate impacts of hydraulic fracturing practices used in coalbed methane production on drinking water sources. In August 2002, EPA issued a draft report that identified water quality and quantity problems attributed to hydraulic fracturing in several states in the West and Southeast, but concluded that the overall impact was small.

In 2003, EPA's National Drinking Water Advisory Council recommended that EPA (1) work to eliminate the use of diesel fuel and related additives in fracturing fluids that are injected into formations containing drinking water sources; (2) continue to study the health and environmental problems that could occur from hydraulic fracturing for coalbed methane production; and (3) defend its authority and discretion to implement the UIC program in a way that advances protection of groundwater resources from contamination. [This section prepared by Mary Tiemann, Specialist in Environmental Policy.]

Other Issues Not Included in the Legislation. *ANWR:* One major element of the energy debate in the 108th Congress has been whether to approve energy development in the Arctic National Wildlife Refuge (ANWR) in northeastern Alaska, and if so, under what conditions, or whether to continue to prohibit development to protect the area's biological resources. Current law forbids energy leasing in the refuge. The House version of H.R. 6 had a provision to limit certain features of federal leasing development to no more than 2,000 acres, while the Senate version contained no provisions to open the refuge to development. In the end, neither the conference bill nor S. 2095 includes the House's development title. [This section prepared by M. Lynne Corn, Specialist in Natural Resources.]

Renewable Portfolio Standard: A key issue in the debate over H.R. 6 has been the inclusion or exclusion of a renewable portfolio standard (RPS). An RPS would impose a requirement on electric utilities to increase the use of renewable fuels in electric power generation. The Senate bill contained a 10% RPS provision. The conference report contained no similar provision, nor does S. 2095. [This section prepared by Robert Bamberger, Specialist in Energy Policy.]